

RESEARCH LETTER



## Do film festivals attract tourists?

Graham Kendall <sup>a,b</sup>, Jimmy H. T. Chan<sup>c</sup>, Matthew C. H. Yeung<sup>c</sup> and Kuok Kei Law <sup>d</sup>

<sup>a</sup>University of Nottingham Malaysia Campus, Semenyih, Malaysia; <sup>b</sup>Automated, Scheduling and Planning (ASAP) Research Group, School of Computer Science, University of Nottingham, Nottingham, UK; <sup>c</sup>Institute of International Business and Governance, The Open University of Hong Kong, Kowloon, Hong Kong; <sup>d</sup>NUCB Business School, Nagoya, Japan

### ABSTRACT

Hosting film festivals has become a prevailing practice to promote culture or festival tourism. Empirical studies on the relationship between cultural attendance and tourism demands, however, were mainly comprised of investigations of data of one or very few countries. In this study, by conducting dynamic panel data analysis, with secondary data across 80 countries collected, the effects of hosting film festivals on the number of inbound tourists were examined. While results informed the economic value of hosting film festivals, the positive effect was found to be more significant when festivals were hosted in art countries.

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## Introduction

*Festivalization* is a rapidly developing global phenomenon in tourism (Bennett et al., 2014). Lee et al. (2012) suggested that festivals could give rise to attendees' positive emotion which could be salient in nature and could encourage the return of tourists in the future. Among the different festivals, film festivals have been gaining popularity (Wong, 2011). It was reported, for example, that the 2017 Sundance Film Festival hosted in Utah, USA generated an economic impact of USD 151.5 million (Sundance Institute, 2017).

Against such a background, this study explores the economic implications of film festivals. We employ the central market theory (Christaller & Baskin, 1966) to guide our exploration. An operating premise of this theory is that a central market place with equal transportation costs in all directions can exist to efficiently supply goods and service to the neighbouring cities or countries in which consumers are assumed to be homogeneous. Hosting a film festival event at a central place provides a new locational feature that is complementary to that focal point, which would provide stimulus to the tourism industry as well as to the economy of the location.

The findings will provide the film industry, organizers of film festivals and government officials the ability to make more informed decisions in joining, organizing and promoting film festivals.

## Methodology

In this study, the relationship between *hosting film festivals* and *tourism demand* was empirically examined. Previous models tended to explain the variations in inbound arrivals of a particular country with a set of regressors. There has not been, however, a consensus on the selection of independent variables and the specification of the base model for this purpose. Only a few isolated efforts have been made to model tourism demand for a group of countries (Song & Li, 2008). More than 95%

of studies in this regard were based on dyadic data that restricted the applicability of the findings to a single country.

Moreover, to the best of our knowledge, there has been no investigation on tourism demand elasticities with a special emphasis on investigating the number of film festivals ( $FILM_{it}$ ) as a determinant of tourist arrivals ( $Inbound_{it}$ ). We propose that the number of inbound trips to the tourist receiving country,  $i$ , is determined by (a) the supply of tourists from the all countries which is the number of the world's outbound tourists minus the outbound tourists of the receiving country ( $Outw_t - Outw_{it}$ ), (b) three attracting features of the receiving country  $i$  – GDP per capita ( $GDPC_{it}$ ), real exchange rate ( $RER_{it}$ ) and political stability ( $PStb_{it}$ ). The included variables mirrored those of Pham et al. (2017) with political stability added because political instability may generate negative publicity, resulting in the inevitable decrease in tourist arrivals (Causevic & Lynch, 2013; Ingram et al., 2013). Our model is illustrated in Equation (1) and the data sources of the different factors are summarized in Table 1.

$$Inbound_{it} = \beta_1 + rInbound_{i,t-1} + (Outw_t - Outw_{it})\beta_2 + GDPC_{it}\beta_3 + PStb_{it}\beta_4 + RER_{it}\beta_5 + FILM_{it}\beta_6 + \mu_i + \varepsilon_{it} \quad (1)$$

We extracted the data from *Euromonitor International (EMI)*, which provides arrival data for 84 major countries from 2001 to 2016. Inbound tourism flows comprise the activities of non-resident visitors within the country of reference on an inbound tourism trip, disregarding border, seasonal, short-term workers, and long-term students as visitors. *EMI* estimates the outbound tourism flows on the basis of data supplied by each of the destination countries, not departure data provided by the country of reference. The listwise deletion applied for handling missing data results in the inclusion of 80 countries in the analysis. The number of sampled countries by regions are as follow: Asia Pacific (18), Australasia (2), Eastern Europe (13), Latin America (13), Middle East and Africa (15), North America (2), Western Europe (17).

Equation (1) includes the lagged dependent variable on the RHS of the equation to indicate the effect of word-of-mouth and habitual travel choice. Modelling such an effect with panel data, by construction, requires an effective estimation approach whose consistent estimator does not lead to Nickell's bias (1981). We adopted Arellano and Bond's GMM difference estimator to estimate the parameter of the equation.

We fitted Equation (1) with three basic functional forms: linear, log-linear and semi-log. Both the log-linear and semi-log models yielded a very poor fit to the collected data. The significance of variables did not resemble what were suggested by prior studies. The linear functional form was the most adequate as it yielded a satisfactory goodness-of-fit and performed best in terms of signs of the coefficients and statistical significance of the coefficients. Table 2 displays the estimates.

**Table 1.** Variable Descriptions and Data Sources.

Variable	Description	Source:
$Inbound_{it}$	The number of inbound trips to the tourist receiving country $i$ at time $t$	Euromonitor International's Travel sources including data from World Tourism Organization and local tourism boards
$Outw_t, Outw_{it}$	The number outbound trips from all countries and from the tourist receiving countries, respectively	
$GDPC_{it}$	Per capita real gross domestic product	Euromonitor International from national statistics
$PStb_{it}$	Political Stability and Absence of Violence/Terrorism <sup>a</sup>	
$RER_{it}$	PPP real exchange rate	World Bank's Estimations <a href="http://www.bestinfest.com/festivallist.htmlb">http://www.bestinfest.com/festivallist.htmlb</a>
$FILM_{it}$	The number of film festivals was held	

<sup>a</sup>Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. Estimate gives the country's score on the aggregate indicator, in units of standard normal distribution, i.e. ranging from approximately  $-2.5$ – $2.5$  (<https://datacatalog.worldbank.org/political-stability-and-absence-violenceterrorism-estimate>). <sup>b</sup> Bestinfest.com has been referred to as the world's largest film festival list (Antolí-Calleja et al., 2016) and the most accurate data source (Follows, 2013) for film festival research.

**Table 2.** The Effect of Film Festival on Tourism Demand.

	Model 1: Base			Model 2: Events in Art Cities		
	Coefficient	Std Error	<i>p</i> -values	Coefficient	Std Error	<i>p</i> -values
$Inbound_{it}$	0.7459***	0.0238	(0.000)	0.8199***	0.0248	(0.000)
$Outw_t - Outw_{it}$	0.0033***	0.0007	(0.000)	0.0032***	0.0008	(0.000)
$GDPC_{it}$	0.0627**	0.028	(0.020)	0.0567*	0.0288	(0.054)
$PStb_{it}$	680.0397***	182.2533	(0.000)	565.4412***	217.3333	(0.010)
$RER_{it}$	-0.1570*	0.085	(0.065)	-0.1471*	0.0856	(0.086)
$FILM_{it}$	267.0125**	119.3415	(0.025)	284.5126**	134.0022	(0.020)
$D_{2003}$	-544.3797***	110.3687	(0.000)	-556.0241***	133.0132	(0.000)
$D_{2008}$	-379.0399***	116.6786	(0.001)	-302.9866***	150.1622	(0.000)
$D_{ART}$				322.1375**	145.0447	(0.027)
$FILM_{it} \times D_{ART}$				898.166***	370.5879	(0.016)
Hansen' <i>p</i>	0.208			0.171		
M1	-7.4330***			-0.6949***		
M2	-0.3223			-0.3763		

$D_{2003}$  and  $D_{2008}$  denote the time dummy for the year 2003 and year 2008, respectively; Asymptotic standard errors in italic; *p*-values in parentheses; M1 and m2 are tests for first-order and second-order serial correlation; Hansen's *p* denotes the *p* -value of Hansen's test of the over-identifying restrictions for the GMM estimators; all computations were computed using DPD98 for Gauss.

To further diagnose the specifications of the model, we employed Hansen's (1982) test of over-identifying restrictions to evaluate the validity of the instruments. The test statistics did not reject the null hypothesis that the moment conditions were invalid at any conventional significance level. To evaluate the consistency of estimators, we tested if the differenced residuals showed evidence of significant or insignificant negative first-order serial correlation. The AR(1) tests rejected the null hypothesis of no first-order serial correlation in the differenced residuals. The AR(2) tests did not reject the null hypothesis of no second-order serial correlation in the differenced residuals. These are indications of correct model specifications.

## Results

The coefficient of *Film* was 267, which means for each film festival, on average, the hosting country can attract an additional 267 tourists in the short-run and 1,045 [i.e.  $267/(1-0.7459)$ ] tourists in the long-run. It is difficult to judge objectively the economic impact of the additional tourists. First, the events of this sort transform many high net worth individuals such as the actors and actresses and their crew members into travellers. Second, they contribute to tourism development in the long run by generating recurring visits to the host countries. In addition to the income generated from the specific travel of the individuals, the host countries are likely to receive high media coverage and may eventually develop into event capitals. Hence, while the estimated headcount appears to be small, the longer term economic impact needs to be further researched.

The comparison between the effects of hosting film festivals in *Art Countries* vs. *non-Art Countries* was reported in Model 2. We define whether or not a country is an *Art Country* from studying five sources (Condé Nast Traveler's Survey on the World's Best Cities for Arts and Culture, Study by TotalMoney.com that analyzed data from TripAdvisor, Michelin's Travel Guide, UNESCO World Heritage Sites and New York Times' webpage for Art and Culture Journey). These sources identify destinations with arts and cultural scenes by a good range of methods (e.g. expert reports, number of art and cultural heritage). We included 27 countries as *Art Countries* whose art-and-cultural destinations have received more than three recommendations from the five sources (see Table 3).

The coefficient of the dummy variable for *Art Countries* ( $D_{ART}$ ) is 322 and it is statistically significant, suggesting that Art Countries are more popular tourist destination when compared to Non-Art countries in general. More importantly, the coefficient of the interaction term between the *Art Countries Dummy* and the number of inbound arrivals is positive and also statistically significant, suggesting that the effect of hosting film festivals in Art Countries on tourism demand is greater

**Table 3.** Recommended Destinations with Arts and Cultural Scenes

Countries	UNESCO	Tripadvisor Data analyzed by TotallyMoney.com	Condé Nast Traveler's Survey	NY Times	Michelin Travel Guide
Australia	S			S	S
Austria	S		S		S
Canada	S	S		S	S
China	S	S			S
Czechia	S	S			S
Egypt	S			S	S
Ethiopia	S			S	S
France	S	S	S	S	S
Germany	S	S		S	S
Greece	S		S	S	S
Hungary	S			S	S
India	S	S		S	S
Israel	S		S		S
Italy	S	S	S	S	S
Japan	S	S	S		S
Jordan	S	S		S	S
Korea	S	S			S
Mexico	S		S	S	S
Morocco	S			S	S
Netherlands	S	S		S	S
Russia	S			S	S
Spain	S	S		S	S
Switzerland	S			S	S
Thailand		S		S	S
Turkey	S	S	S		S
UK	S	S	S	S	S
USA	S	S	S	S	S

than hosting film festivals in Non-Art Countries. In the short-run, on average, Art Countries generate four times as much inbound arrival as Non-Art Countries do per film festival. In the long-run, the differential effect goes up to five times.

## Conclusion

In the tourism demand literature, cultural resources have been recognized as a factor attracting greater flows of tourism. The attention on the economic contributions of film festivals, however, has not been specifically explored empirically. Our study provides empirical evidence to support the economic contribution of the film industry in terms of tourism demands. Although the analysis provided statistical evidence, the size of the estimates was rather low. Future research can explore the effects of one-time film festival on tourism demand against those of film festivals' that are organized periodically. The evidence of the present study also leads to the needs for the development of cultural districts for the film industry.

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## Disclosure statement

No potential conflict of interest was reported by the author(s).

## ORCID

Graham Kendall  <http://orcid.org/0000-0003-2006-5103>

Kuok Kei Law  <http://orcid.org/0000-0001-9535-6429>

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